

15 February 1956

ATTACHMENT "B"

An upper level research unit equipped with instrumented aircraft having the capability of achieving an altitude of 55 to 60,000 feet would secure highly valuable information about the following items:

- (1) Turbulence
  - (a) Associated with jet stream
  - (b) Tropopause
  - (c) Lower stratosphere
- (2) Detailed temperature structure
  - (a) Tropopause
  - (b) Lower stratosphere
- (3) Wind structure
- (4) Measurement of ozone concentration at various altitudes
- (5) Diffusion of gases in the stratosphere
- (6) Rate and method of interchange of air between the stratosphere and troposphere
- (7) Water vapor content of the lower stratosphere
- (8) Vertical motion in the upper troposphere and lower stratosphere
- (9) Visibility at tropopause
- (10) Chemical analysis of air samples in layers of restricted visibility at high altitudes
- (11) Air trajectories

The information listed above could be secured at many locations. However, maximum results would be achieved by approximately simultaneous observations made at various areas over the Northern Hemisphere.